PURVIEW OF BLR&D AND CSR&D SCIENTIFIC REVIEW GROUPS

Merit Review Award applications submitted to BLR&D and CSR&D are those which involve Veteran-centric preclinical biomedical and behavioral research as well as clinical research including epidemiology and single-site or small multi-site clinical trials. These applications are reviewed by specific Scientific Review Groups (SRGs). The following purview provides general guidelines used for assignment of applications to these SRGs. Although applicants may request assignment to a specific SRG, final assignments are determined by BLR&D/CSR&D Service Directors, principally based on the SRG most appropriate to provide the best scientific review. SRGs may be divided at the discretion of the Service Directors. The acronyms used in Electronic Research Administration (eRA) Commons are listed in [brackets].

A. **Aging and Clinical Geriatrics [AGCG].** **AGCG** reviews applications that focus on aging and age-related changes, including the physiologic aspects of the aging process and the multisystem manifestations of disease. This includes applications focused on geriatric syndromes (*e.g.*, frailty, delirium), disease prevention in the elderly (*e.g.*, exercise physiology, nutrition and weight control), aspects of geriatric pharmacology (*e.g.* polypharmacy), physiologic aging and aspects of cellular senescence as it directly applies to improving the health care of Veterans 60 years or older. *Shared interests between SRGs may occur for applications that have a focus on a specific disease/organ system and some link to the aging research areas described above. These applications may be referred to the specialty SRGs (see below).*

B. **Cardiovascular Studies [CARA/CARB].** **CARA/CARB** reviews applications focused on the etiology, pathogenesis, diagnosis, and treatment of diseases and disorders of the heart and vascular system, including the effects of aging. **CARA/CARB** also reviews studies on the etiology and pathogenesis of idiopathic hypertension. **CARA** will evaluate applications with a focus on heart diseases and **CARB** will evaluate applications with a focus on vascular diseases. ***NEPH*** *reviews nephrogenic hypertension.* ***ENDA*** *reviews endocrine hypertension.* ***NURB*** *reviews studies of innervation and neural control of the heart.*

C. **Cellular and Molecular Medicine [CAMM].** **CAMM** reviews applications focused on cellular and molecular biology, biochemistry, biophysics, genetics or cellular senescence that are not restricted to a particular disease process or organ system but must show a clear translational pathway to improving the healthcare of Veterans. **CAMM** also reviews applications aimed at the development of analytical tools and systems that may form a novel diagnostic platform with translational potential for reducing the healthcare burden of chronic diseases and conditions prevalent in Veterans. The testing and development of diagnostic tools for a specific disease may be reviewed by the appropriate subject area SRG. In addition, **CAMM** reviews applications that investigate basic biological process of stem cells, induced pluripotent stem cells, and the differentiation of skeletal muscle cells. *Applications to study specific lineage determinant of stem cells, transplantation of stem cells to remedy deficits in a particular organ system, or differentiation of smooth muscles as related to a particular organ system are reviewed by the appropriate organ system SRG. Applications to examine innervation of muscles and neuromuscular dysfunctions are reviewed by NURB.*

D. **Clinical Trials [CLNA and CLNB].** The Clinical Trials SRGs review single-site or multi-site clinical trials involving human subject randomization and appropriate controls designed to assess the potential safety and/or effectiveness of an intervention, directly with a definitive clinical endpoint or via a surrogate endpoint, such as biomarker assessment or other physiological measure. The intervention may use drugs, treatments, or devices. Assessment of diagnostics by experiments designed to show equivalence of test results with those of existing diagnostic devices or methods are usually not considered to be clinical trials. The trial must be the sole objective of the application. This requires that pre-trial data collection or instrument development, etc., should be accomplished in studies supported separately, e.g., a clinical trial cannot be proposed as one specific aim of an application with multiple aims. Applications reviewed in this SRG require special attention to safety issues, appropriate populations, and adequate statistical power to obtain meaningful results. **Note:** All Merit Review applications (regardless of the disease area) proposing a clinical trial require an approved Letter of Intent (LOI) and must respond to the CSR&D Clinical Trials Request for Applications (RFA) or the RFA for the Cooperative Clinical Trial Award, which has a separate LOI process. **CLNA** reviews clinical trials in neurological and psychiatric disorders. These include substance abuse and addictive disorders, pain, spinal cord injury, TBI, and neurodegenerative disorders, as well as psychiatric and behavioral disorders such as psychotic disorders, mood and anxiety disorders, post-traumatic stress disorder, and behavioral and cognitive disorders. **CLNB** reviews clinical trials in all other disease areas (excluding neurological and psychiatric disorders).

E. **Endocrinology [ENDA & ENDB].** **ENDA** reviews applications focused on the biology, physiology, molecular biology, and genetics of regulation of all endocrine organs and their products (*e.g.*, insulin, glucagon, corticosteroids, sex hormones). Applications studying the etiology, pathogenesis, diagnosis, and treatment of diseases associated with endocrine abnormalities (*e.g.*, diabetes, Cushing's syndrome, hyperthyroidism, obesity, the effect of aging) are also reviewed by **ENDA**. **ENDB** reviews applications focused on bone and mineral metabolism (*e.g.* cell biology of bone formation, fracture healing, bone resorption, osteoporosis, vitamin D, calcium studies), including the specific effects of aging. *Applications that study diabetic neuropathies and retinopathies are reviewed in NURB and NURF, respectively*.

F. **Epidemiology [EPID].** **EPID** reviews epidemiological research studies that satisfy the following criteria: the unit of observation for the primary analysis of results is an intact human being; the research question being addressed involves etiology, prevention, diagnosis, prognosis, therapy, or related aspects of health and disease; and the study design is observational (*e.g.*, cohort or case-control studies), rather than experimental (*i.e.*, randomized controlled trials are reviewed in **CLNA** or **CLNB**). Accordingly, **EPID** projects include traditional population-based epidemiology projects and projects in the discipline known as clinical epidemiology that focus on questions that arise in the clinic. Laboratory-based projects focused on molecular or genetic testing (*e.g.*, molecular epidemiology with genotypes serving as the unit of analysis) or projects focusing on pathophysiological mechanisms of disease are reviewed by the appropriate disease/organ system SRG. *Projects assessing delivery and outcomes of health care (e.g., issues related to quality of care, access, cost) should be submitted through HSR&D.*

G. **Gastroenterology [GAST].** **GAST** reviews applications focused on the biology and physiology (*e.g.*, GI motility, regulation of GI secretion, digestion, nutrition, absorption, GI mucosal healing) of the gastrointestinal (GI) system, and of associated organs such as liver, spleen, gallbladder, and pancreas. **GAST** also reviews applications that study the etiology, pathophysiology, diagnosis, and treatment of diseases of the GI system. Applications focused on studying the effects of aging, immunologic, neurogenic, infectious, toxic, or carcinogenic agents on the GI system are also reviewed by **GAST**.

H. **Genomics [SPLC].** **SPLC** reviews applications focused on human disease that have a significant genetic analysis component. This includes studies that utilize Single Nucleotide Polymorphisms (SNPs), Genome Wide Association Studies (GWAS), expression arrays/transcriptomics, epigenomics, gene by environment interactions and/or exome or whole genome sequencing methodologies and their associated analyses as a primary aim. **SPLC** also reviews applications that seek access to existing genetic samples stored within the VA. All **SPLC** applications undergo review by statistical geneticists AND subject matter experts.

I. **Hematology [HEMA].** **HEMA** reviews applications focused on the physiology of the cellular and non-cellular constituents of blood, including the processes of hemostasis, thrombosis, blood coagulation, cell adhesion, hemo-compatibility, hematopoiesis, fibrinolysis and the effects of aging on these processes. Studies on the etiology, pathogenesis, pathophysiology, diagnosis, and treatment of benign and malignant blood diseases such as leukemia, lymphoma, myeloma, anemia, polycythemia vera, and thrombocytopenia are reviewed by **HEMA**. **HEMA** also reviews studies focused on normal and abnormal macrophage, platelet, and neutrophil functions that serve to improve the health of Veterans.

J. **Immunology and Dermatology [IMMA].** **IMMA** reviews applications that investigate mechanisms involved in functions of the immune system, including studies on the etiology, pathogenesis, diagnosis, and treatment of autoimmune disease, immunodeficiency, immune-complex disorders, diseases related to allergic or delayed hypersensitivity reactions, and osteoarthritis and rheumatoid arthritis as a result of a military and/or environmental exposure experienced by Veterans. Applications that evaluate the effects of aging on the immune system and studies on immuno-pharmacology, immuno-genetics, and dermatological disorders of immunologic or unknown etiology, and immunology of organ transplantation are reviewed by **IMMA**. **IMMA** also reviews proposals on immunotherapy development when the study focuses on the immune system. *Applications on cancer immunotherapy are reviewed in the Oncology panel focused on specific cancer subtypes. .* ***INFA/INFB*** *reviews applications studying the immune response to specific infectious agents and vaccine development.* ***PULM*** *reviews applications focused on lung immunity.*

K. **Infectious Diseases [INFA and INFB].** **INFA/INFB** reviews applications focused on the etiology, pathogenesis, diagnosis, and treatment of infectious diseases of man and relevant animal infection models, including studies of the effects of aging on infectious diseases. Areas of investigation include pathogenic mechanisms, host-defense mechanisms, immune responses to specific infectious agents, life cycles of the infectious agent, anti-microbial drug therapies, and vaccine development. **INFA** reviews applications pertaining to viral infections while **INFB**

reviews applications on all other infectious agents. ***IMMA*** *reviews studies on basic immunologic mechanisms that relate to all classes of infectious agents. The appropriate organ or system SRG may review studies on organ pathology associated with an infectious agent.*

L. **Mental Health and Behavioral Sciences [MHBA].** **MHBA** reviews studies of the etiology, pathobiology, diagnosis and treatment of psychiatric and behavioral disorders including psychotic disorders, mood and anxiety disorders and post-traumatic stress disorder.

M. **Neurobiology [NURA/NURB/NURC/NURD/NURE/NURF/NURR].** **Neurobiology** SRGs review applications focused on the etiology, pathogenesis, diagnosis, and treatment of diseases of the central and peripheral nervous systems that will advance health care for Veterans. This SRG is sub-divided into more specific Subcommittees.

NURA reviews applications that address the neurotoxicological and behavioral outcomes of substance abuse and addictive disorders. Applications focused on substance use, including alcohol and drugs of abuse, that evaluate drug dependence, addiction, tolerance, sensitization, craving, withdrawal, pain management or analgesia are reviewed by **NURA**. **NURA** may also review studies on the effects of aging on the above conditions and studies on the anatomical, biochemical, and/or molecular basis of mental or emotional disorders. The behavioral, genetic etiology, pathobiology, and treatment of the above conditions are reviewed by **NURA**. *Organ-specific SRGs will review applications dealing with the effects of the alcohol or drugs of abuse on specific peripheral organs (e.g., **PULM** reviews pulmonary effects of smoke inhalation; **GAST** reviews alcoholic liver diseases). **CLNA or CLNB will** review applications that focus on clinical trials related to the above conditions. Alcohol or drug use secondary to PTSD, anxiety, depression or schizophrenia may be reviewed by **MHBA**.*

NURB reviews applications that focus on damage and trauma to the peripheral nervous system (*e.g.*, peripheral or diabetic neuropathies) as well as studies involving epilepsy, and/or neuronal plasticity. Applications focused on demyelinating disorders such as multiple sclerosis, as well as neuromuscular disorders, including those that involve the neuromuscular junction, are reviewed by **NURB**. **NURB** also reviews studies that address the anatomical, biochemical, and/or molecular basis of pain. *Neuroendocrinological studies focusing on hypothalamic releasing factors, anterior or posterior pituitary hormones, or other glandular hormones (e.g., cortisol) will be reviewed by **ENDA**. Studies on neoplasms occurring in the nervous system will be reviewed by **ONCA**. **SURG** reviews studies that examine surgical approaches to resecting CNS tumors.*

NURC reviews studies of injury and trauma to the central nervous system, including spinal cord injury, traumatic brain injury, stroke, intracerebral and subarachnoid hemorrhage, and the effects of ablation or pressure on neuronal function caused by CNS tumors.

NURD reviews applications that study Alzheimer's disease, other age related dementias, the aging brain, and cognitive impairment. Applications that are reviewed by **NURD** focus on neurodegenerative pathophysiology, behavioral assessments, and functional imaging. *Cognitive or neuropsychological impairment related to Alzheimer's disease or other forms of dementia may be reviewed by* **MHBA**.

NURE reviews applications that study Parkinson's disease, upper and lower motor neuron disease, amyotrophic lateral sclerosis (ALS) and Huntington's disease. **NURE** primarily reviews studies focused on neurodegenerative pathophysiology, behavioral assessments, and functional imaging. *Cognitive studies involving ALS or Parkinson's disease may be reviewed by **MHBA***.

NURF reviews applications involving the sensory systems of vision, taste, hearing, and smell. Applications focusing on diabetic retinopathy are also reviewed by **NURF.**

NURR reviews applications involving sleep, circadian rhythms, and the neurological aspects of sleep disorders such as sleep apnea. *Respiratory control of sleep apnea is reviewed by **PULM***.

N. **Nephrology [NEPH].** **NEPH** reviews applications focused on the etiology, pathogenesis, diagnosis, and treatment of diseases and disorders of the kidney, including the effects of aging on these areas. Studies that address end-stage renal disease including peritoneal dialysis and renal function following transplantation are also reviewed by **NEPH**. **ONCA** reviews studies focused on renal carcinomas. ***SURG*** *reviews applications focused on the surgical approaches to disorders of the kidney and genitourinary tract.*

O. **Oncology [ONCA/ONCB/ONCC/ONCD/ONCE].** **Oncology** SRGs review applications focused on the etiology, pathogenesis, diagnosis, and treatment of various malignancies, including the effects of aging on these conditions. Studies that address various phases of the oncologic process, including cancer initiation, promotion, progression, and metastasis are reviewed by **Oncology** SRGs. **Oncology** SRGs also review applications focused on several types of cancer therapy (*e.g.*, including chemotherapy, radiation therapy, immunotherapy, and gene therapy) and on premalignant conditions. ***IMMA*** *reviews applications focused on the development of cancer immunotherapy when the study emphasizes immune system manipulation. The effects of solid tumors on the function of specific organs or systems are reviewed by the appropriate organ-specific SRG.* ***SURG*** *reviews surgical management of solid tumors.*

ONCA reviews applications focused on Urogenital Cancers (*e.g*. Renal, Bladder and Prostate).

ONCB reviews applications focused on Aerodigestive Cancers (*e.g*. Head and Neck, Esophagus and Lung).

ONCC reviews applications focused on Digestive System Cancers (*e.g.* Barrett's esophagus, Liver, Pancreas, and Colorectal cancers).

ONCD reviews applications focused on Female-Specific Cancers (*e.g.* Breast, Ovarian, Cervical and Uterine).

ONCE reviews applications focused all other cancers (*e.g*. Skin, Brain).

P. **Pulmonary Medicine [PULM].** **PULM** reviews applications focused on the etiology, pathogenesis, diagnosis, and treatment of diseases and disorders of the lung, including the effects of aging. The effects of immunologic, infectious, carcinogenic, or toxic insults on the lung are

reviewed by **PULM**. **PULM** also reviews applications addressing the effects of transplantation on pulmonary function, upper airway and respiratory control in sleep apnea/disordered breathing, and the biomechanics of mechanical ventilation. *Neural control of breathing in relation to circadian rhythms and sleep is reviewed in **NURR**. Sleep disorders as they relate to mood or cognitive function may be reviewed by **MHBA.***

Q. **Special Emphasis Panel on Gulf War Research [SPLD].** **SPLD** reviews applications focused on the etiology, pathogenesis, diagnosis, and treatment of diseases and other medical conditions that impact Veterans of the 1990-1991 Gulf War. This includes well-characterized, diagnosable diseases that occur at excess rates in Gulf War Veterans as well as the undiagnosed chronic multisymptom illness that affects many Gulf War Veterans. This condition is characterized by persistent symptoms such as chronic headache, musculoskeletal pain, cognitive difficulties, fatigue, gastrointestinal problems, respiratory symptoms, neurological symptoms, and other abnormalities that are not explained by familiar medical or psychiatric diagnoses. The development of genetic/genomic markers, alternative biomarkers, and other diagnostic tools for characterizing Gulf War Veterans' Illnesses is an important topic area considered by this SRG.

R. **Surgery [SURG].** **SURG** reviews applications focused on the surgical aspects of cardiac, thoracic, orthopedic, vascular, pulmonary, gastrointestinal, renal, and genitourinary tract disorders typically referred to the Surgical Service at the VA. Complications of major surgery such as hemostasis, altered immunity, secondary infection, sepsis, multi-organ failure, and reperfusion injury are reviewed by **SURG**. **SURG** reviews all facets of physical trauma, wound healing, surgical nutrition, burn treatment, and the surgical aspects of: organ transplantation, organ transplant survival, and immunosuppressive therapy. Surgical approaches to peripheral and central nervous system lesions, and reconstructive surgery, including surgical approaches of ophthalmological, head and neck, ear, nose, and throat disorders are reviewed in ***SURG***. **SURG** also reviews studies of impotence, oral health (e.g., dental trauma and prostheses), and structural disorders of the oral cavity. ***INFA/INFB** reviews microbiological aspects of dental and periodontal disease. **IMMA** reviews immunologic aspects of organ transplantation. Malignances of the oral cavity may be reviewed in **ONCB**.*